Lung Physiology #250 Suppl.

Committee:
Drs. Kotin, Chm.
Jacobson
Reimann
Rienhoff

TOBACCO INDUSTRY RESEARCH COMMITTEE

150 East Forty Second Street

New York 17, N.Y.

Activated: 3/1/60

Application for Supplementary Funds

Date: July 28, 1960

1. Name of Investigator: Benson B. Roe, M.D.
Leon Goldman, M.D.

2. Title: The Action of Negatively Charged Ions on Tracheo-Bronchial Ciliary Action in the Human Patient.

3. Institution & Address: University of California Medical Center
San Francisco 22, California

4. Project or Subject: In vitro studies on animal trachea by Dr. Albert P. Krueger (Professor of Bacteriology, Emeritus, University of California) and living animal studies on tissue susceptibility to trauma have indicated significantly detrimental effects of positively charged ions in the inhaled air. Negative ions have been demonstrated to produce increased ciliary action and to promote tracheal cleaning. Little work on this subject has been done in this country, though extensive studies have been carried out in Europe. The potential clinical value of this work is significant, and of particular importance in its use in the postoperative patient to aid mucous evacuation and avoid atelectasis.

5. Detailed Plan of Procedure:

Method:

Safe, effective air-negative ionization apparatus has been developed by the Wesix Electric Company in San Francisco. It is planned to carry out a long-term study of clinical effectiveness of this measure in the postoperative patient both during and after anesthesia. In vitro studies on fresh surgical specimens of human bronchus will be carried out simultaneously on this campus to determine whether ciliary activity and bronchial trauma are effected by positive and negative ions in the same manner as that demonstrated by Dr. Krueger's animal studies.

6. Budget Plan:

a.	Salaries	-----
b.	Expendable Supplies	$ 100.00
c.	Permanent Equipment	750.00
d.	Overhead (15% of a / b)	15.00
e.	Other	
		$ 865.00

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Source: https://www.industrydocuments.ucsf.edu/docs/gqpl0000

7. Anticipated Duration of Work: Two or three years.

8. Facilities and Staff Available: Benson B. Roe, M.D. (Assoc. Prof. of Surgery)
Henrietta Chandler, B.S. (Laboratory Technician)
Laboratory is located in the Experimental Surgery Building.
Equipment already purchased includes 1) Dissecting microscope, 2) AIR Ion target collector, 3) Wesix Mark IV Ion collector, 4) Vibrating Reed type micro-micro-ammeter, 5) Strobotac Light.

9. Additional Requirements: Additional financial support is requested. Estimates of various costs in the categories listed have already proven to be unrealistic so far as our original grant request was concerned. The continuation of the project is dependent upon further support not available from existing local funds or facilities.

Expendable Supplies:

Original request was for $500. In the first three months of operation the expendable supplies have been for $126.80. Further supplies have been already requisitioned.

Permanent Equipment:

Original request was for $1,700 based on available catalog costs of necessary equipment as listed. These costs have all exceeded the original estimates and before completing our equipment even for the basic studies, without including that for the clinical studies, a total of $2000 has been spent.

10. Additional Information (Including relation of work to other projects and other sources of supply):

/s/ Benson B. Roe
Director of Project

/s/ Stanley C. Bateman
Business Manager

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Source: https://www.industrydocuments.ucsf.edu/docs/gqpl0000